

PUBLIC CONSULTATION MEETING TO DISCUSS

Proposed Airborne Toxic Control Measures to Reduce Diesel Particulate Matter Emissions from In-Use and New Stationary Diesel-Fueled Engines



March 6, 2003



California Environmental Protection Agency

Air Resources Board

ATCM Development Process

- Held Public Workshops
 - ◆ February 2001 - Discussed Risk Reduction Plan
 - ◆ January 2002 - Presented regulatory concepts
 - ◆ April 2002, September 2002, November 2002 - Presented proposed draft regulatory language
- Coordination with CAPCOA Working Group
- Ongoing consideration of verbal and written comments
- Control Equipment Demonstration
- Test Method Workgroup

Basic Control Approach to Developing Air Toxic Measures (ATCMs)

- Establish diesel PM emission standards that are based on the use of best available diesel PM control technologies and lowest-emitting diesel-fueled engines
- Consider contribution to overall ambient PM and risk levels, potential near source risk, and the cost of controls when establishing emission standards

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Proposed Modifications to the Draft ATCMs

- Restructuring
- Definitions
- Performance Standards
- Exemptions
- Non-Compliance Notification

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Re-Structuring of Air Toxic Control Measures (ATCMs)

■ September 2002 Structure:

- ◆ ATCM for In-Use Stationary CI Engines > 50 hp
- ◆ ATCM for New Stationary CI Engines (All hp)

■ Current Approach

- ◆ ATCM for New and In-Use Stationary CI Engines >50 hp
- ◆ ATCM for Stationary CI Engines \leq 50 horsepower

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Applicability of Emission Standards

■ Standards for In-Use Engines >50

- ◆ Applies to any person who owns or operates a stationary prime or emergency standby diesel engine greater than 50 hp

■ Standards for New Engines >50

- ◆ Applies to any person who offers for sale, sells, leases, purchases, or operates a new stationary prime or emergency standby diesel engine greater than 50 hp

■ Does not apply to Agricultural Engines exempted from permit (H&SC 42310)

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New or Modified Definitions

- Rotating Outage
- New Engine
- Baseline Emission Level
- Maintenance and Testing Operation
- Alternative Fuel vs. Alternative Diesel Fuel

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Proposed PM Performance Standards for Stationary CI Engines

- Use CARB Diesel or Clean Alternative
- In-Use Stationary Diesel-Fueled > 50hp
 - ◆ E/S: Tiered approach
 - ◆ Prime: 0.01 g/bhp-hr, or 85% reduction
- New Stationary Diesel-Fueled > 50hp
 - ◆ E/S: Tiered approach
 - ◆ Prime: 0.01 g/bhp-hr

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Proposed Tiered Approach for Diesel PM Emission Standards for New E/S Engines > 50 hp

- E/S engines that operate 100 hours/year or less (maintenance and testing) would be required to meet a 0.15 g/bhp-hr PM standard
- E/S engines that operate more than 100 hours/year (maintenance and testing) would be required to meet a 0.01 g/bhp-hr PM standard

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Proposed Tiered Approach for Diesel PM Emission Standards for In-Use E/S Engines > 50 hp

- E/S engines that operate 15 hours/year or less (maintenance and testing) would be in compliance
- E/S engines that operate more than 15 hours/year (maintenance and testing) would be required to meet a tiered schedule.

DIESEL PM EMISSION RATE (g/bhp-hr)	MAXIMUM ALLOWABLE ANNUAL HOURS OF OPERATION (Maintenance and Testing)
>0.50	15
0.50	30
0.40	40
0.15	100
0.01	>100

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Proposed Modifications to Emergency Standby Operating Requirements

- New requirement: If located within 1000 feet of a school, cannot be operated during school hours for maintenance and testing
- Deleted requirement: Rolling Blackout (Rotating Outage) Plan no longer required

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Recordkeeping and Monitoring Requirements

- **New and In-Use Stationary Diesel CI Engines > 50 hp**
 - ◆ Initial Requirement: Requires information be submitted to district 90 days after effective date, or prior to installation
 - ◆ Additional Requirement for In-Use Engine Owners: Requires information on compliance strategy be submitted to district no later than 90 days prior to earliest compliance date
- **Install Monitoring Equipment as appropriate**

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Exemptions

- Air Force Training Engines
- Hospitals with OSHPD Plans
- OCS Platforms
- “Delay of Implementation” for Remote Engines
- Nuclear facilities
- Proposed exemption for low-use prime engines (≤ 15 hours/year)

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Initial Demonstration of Compliance

- The owner or operator is required to provide District with emissions data to show compliance, such as:
 - ◆ emission test data on engine
 - ◆ emission test data on similar engine
 - ◆ off road certification data
 - ◆ verification data
 - ◆ manufacturers data

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Notification of Non-Compliance

- Self-reporting
- An owner/operator that determines the engine is in violation of the operational requirements or emission limits defined in the ATCM shall notify the district, and be subject to district enforcement action.

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Loss of Exemption Status

- District notification or self-reporting
- Exemptions based on hour of operation, proximity to receptor location, criteria defined by district at time of issuing exemption
- Must comply with requirements of ATCM 180 days after loss of exemption

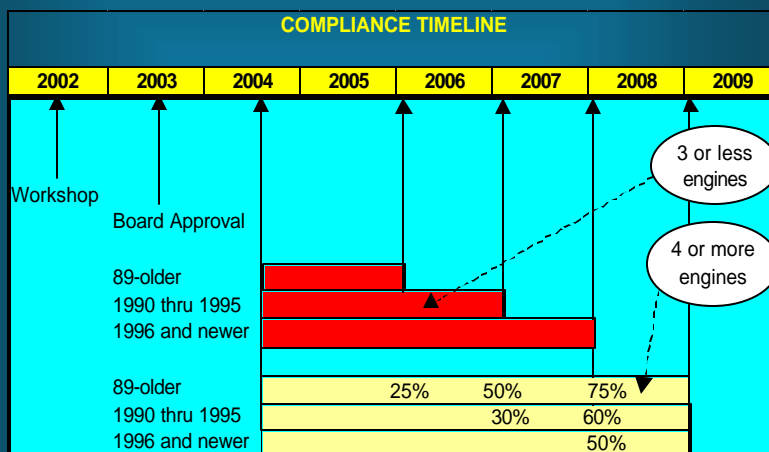
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Compliance Schedules

- In-Use Stationary Diesel-Fueled Engines > 50 hp
 - ◆ Pre-1989: January 1, 2006
 - ◆ 1990 thru 1995: January 1, 2007
 - ◆ Post 1995: January 1, 2008
 - ◆ More time for owners of four or more engines
- New Stationary Diesel-Fueled Engines > 50 hp
 - ◆ 1 to 180 days after effective date of ATCM (~early to mid 2004)

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Compliance Schedules (cont.)



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PM Emission Testing

- ◆ ATCMs proposes:
 - ✦ ARB Method 5 and 100, carried out under steady state operation in accordance with ISO 8178 loading cycles
 - ✦ Alternative method approved by the District
- ◆ Test method evaluation underway
 - ✦ Method 5/100
 - ✦ Off-road Certification Method (13 CCR 2423)
 - ✦ Industry/ARB/District Workgroup established to evaluate and propose appropriate test method

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Key Elements of the Proposed ATCM for Stationary CI Engines ≤ 50 hp

- Applicability of Emission Standards
- PM Emission Standards
- Recording Requirements
- Compliance Schedule

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Applicability of Emission Standards

- Applies to any person who offers for sale, sells, or leases any diesel-fueled engine ≤ 50 hp
- Does not apply to sellers/leasers of engines to agricultural operations

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Proposed PM Emission Standards and Compliance Schedules

- No person shall offer for sale or lease a stationary diesel-fueled CI engine (≤ 50 hp) that does not meet current PM, NMHC+NO_x, CO off-road engine emission standards (13 CCR 2423)
- Compliance date linked to effective date of ATCM

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Recordkeeping Requirements for Sellers of ≤ 50 hp engines

- Requires seller to provide ARB with annual report
 - ◆ Seller Contact information
 - ◆ Make
 - ◆ Model
 - ◆ Certification Info
 - ◆ Rated Brake Horsepower
 - ◆ Model year
 - ◆ Emission Control Strategy to meet Certification Standard
 - ◆ Number sold

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Next Steps

- Continue informal regulatory process
- Next Workshop tentatively scheduled for May
- Staff plans to present ATCMs to Board in July 2003

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Contact Information

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- ARB Website

- ◆ www.arb.ca.gov/diesel/dieselrrp.htm

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